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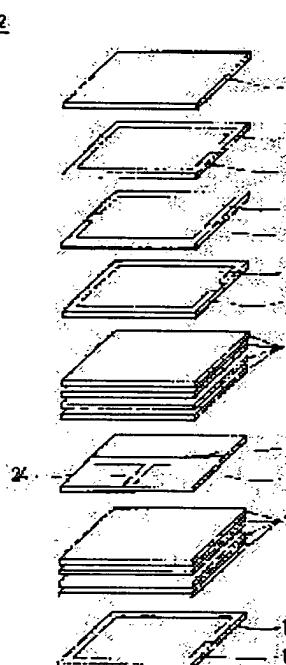
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## (54) RESONATOR AND FILTER USING IT

## (57) Abstract:

PURPOSE: To obtain a small sized resonator whose resonance characteristic is adjusted and a filter in which a signal loss in a pass band is small and an attenuation at the outside of the pass band, especially at lower frequencies is high.

CONSTITUTION: The resonator includes a block 12 having dielectric layers 14, 18, 20, 26, 28, 32, 38, 40. A round electrode 16, a pattern electrode 22 and an input output electrode 24 are formed respectively on the dielectric layers 14, 20. An input output capacitor electrode 28 is formed on the dielectric layer 26. Capacitor electrodes 30, 34, 38 are formed on the dielectric layers 18, 20, 26, 32, 38, 40. A ground electrode 16, a pattern electrode 22 and the capacitor electrodes 30, 34, 38 are connected to a side face of the block 72, the ground electrode 16, the pattern electrode 22 and the capacitor electrodes 30, 34, 38 are connected. Furthermore, the pattern electrode 22 and the capacitor electrode 34 are connected. Moreover, the pattern electrode 22 and the capacitor electrode 34 are connected. Two each of the pattern electrodes 22, the input output capacitor electrodes 24, and capacitor electrodes 30, 34, 38 are formed on the dielectric layer and the two resonators obtained are coupled to form a filter. In this case, the capacitor electrodes adjacent to each other on one and same dielectric layer are connected to the pattern electrode and the ground electrode in an opposite direction.



## LEGAL STATUS

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